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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/895,231	06/29/2001	David Michael Koelle	AUS920010286US1	8640

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IBM CORP (YA)
C/O YEE & ASSOCIATES PC
P.O. BOX 802333
DALLAS, TX 75380

EXAMINER

PANNALA, SATHYANARAYA R

ART UNIT PAPER NUMBER

2167

DATE MAILED: 11/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

SK

Office Action Summary

Application No.

09/895,231

Applicant(s)

KOELLE ET AL.

Examiner

Sathyanarayan Pannala

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. The Application, 09/895231 filed on 6/29/2001 has been examined.

Claims 1-29 are pending in this Office Action.

Specification

2. The abstract is objected because the abstract is a copy of the summary. Corrected abstract of the disclosure is required and must be presented on a separate sheet, apart from any other text. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

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The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Kenner et al. (US Patent 6,496,856) hereinafter Kenner.

5. As per independent claim 1, Kenner teaches a video clip storage and retrieval system for user to receive comprehensive data collected from one or more databases by request from a user's multimedia computer. The user request is transmitted to the user's primary index manager via a local storage and retrieval unit (SRU) (col. 3, lines 6-10 and 34-37). Kenner teaches the

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claimed step of "organizing the set of data into a plurality of related sets of data" as the SRU command logic sees to the duplication of popular videos on alternate SRUs 26. It also places copies of video segments on SRUs geographically closer to the user most interest in those videos. Duplication of data is done during the non-peak periods of the system (Fig. 1, col. 8, lines 27-32). Further, Kenner teaches the claimed step of "assigning, by a set of services, management of a related set of data to a service within the distributed set of services based on an optimization criteria" as the primary index manager (PIM) determines whether it is managing an extended SRU 26 based on searching through audio-visual data index database to identify the video clips that have been accessed most frequently (FDVs) (the optimization criteria is the most frequently accessing compared a predetermined value.) The video clips are duplicated on the identified extended SRUs. (Fig. 1, col. 8, lines 35-47). Finally, Kenner teaches the claimed step of "responsive to failure of a service within the distributed set of services, transferring management of the related set of data managed by the failed service to another service within the distributed set of services" as whenever an SRU fails to deliver the requested video clip, the DSI 30 increments the SRU under-run counter for that SRU and eventually communicates this information to the PIM 22. The PIM 22 directs further requests to alternate SRUs for video clip information (Fig. 1, col. 14, lines 20-28).

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6. As per dependent claim 2, Kenner teaches the claimed step of “the optimization criteria is based on location of the service within the distributed set of services” as the Audio-visual data index database is searched to determine most frequently accessed SRUs in comparison to predetermined value. Those extended SRUs are selected for the duplication or transferal. The selected SRUs are evaluated to whether they can accept duplicate copy of the video clip. If so, the FDV is duplicated on the identified extended SRU 26 (Fig. 1, col. 8, lines 38-47).

7. As per dependent claim 3, Kenner teaches the claimed step of “detecting the failed service by a set of remaining services within the distributed set of services” as whenever an SRU fails to deliver the requested video clip, the DSI 30 increments the SRU under-run counter for that SRU and eventually communicates this information to the PIM 22 (Fig. 1, col. 14, lines 20-23). Further, Kenner teaches the claimed step of “examining, by the set of remaining services within the distributed set of services, the related set of data managed by the failed service” as if the SRU under-run count exceeds a predetermined threshold value the PIM 32 directs further requests away from this affected SRU by the DSI 30 query alternate SRUs for the video clip information (Fig. 1, col. 14, lines 23-28).

8. As per dependent claim 4, Kenner teaches the claimed step of “determining whether data within the related set of data are at the same location

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as a service within the set of remaining services” as in the event that the video clip is only stored at this location, then a delay will be encountered as the DSI 30 waits for the video information to be downloaded. The PIM 22 will also direct that the number of FDVs to be decremented for this affected extended SRU 26 (Fig. 1, col. 14, lines 28-32). Further, Kenner teaches the claimed step of “responsive to data within the related set of data at the same location as a service within the set of remaining services, attaching the data to the service” as the SRU under-run counter parameter identifies the location of over-accessed SRUs, audio-visual data will be moved or copied from heavily loaded SRUs to lightly loaded SRUs in an effort to distribute or flatten SRU demand (Fig. 1, col. 14, lines 33-38).

9. As per dependent claim 5, Kenner teaches the claimed step of “responsive to an additional service joining the distributed set of services, querying management of the data within the related sets of data” as data is preferably maintained on the extended SRUs 26 which are most often queried for the data, duplicated on local SRUs 18 which most often request the data or may be duplicated on other remote SRUs 38 as space allows (Fig. 1, col. 14, lines 43-46). Further, Kenner teaches the claimed step of “assigning management of a related set of data to the additional service within the distributed set of services based on the optimization criteria” as the supply and demand approach mediated by PIM 22 in response to DSI monitoring inputs , provides fast access to most requested information and efficient storage with in a

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maximum of useful redundancy without waste or loss of performance. The network is also configured always to store each audio-visual entry in at least one other location (Fig. 1, col. 14, lines 47-53).

10. As per independent claim 6, Kenner teaches a video clip storage and retrieval system for user to receive comprehensive data collected from one or more databases by request from a user's multimedia computer. The user request is transmitted to the user's primary index manager via a local storage and retrieval unit (SRU) (col. 3, lines 6-10 and 34-37). Kenner teaches the claimed step of "organizing the set of data into a plurality of related sets of data" as the SRU command logic sees to the duplication of popular videos on alternate SRUs 26. It also places copies of video segments on SRUs geographically closer to the user most interest in those videos. Duplication of data is done during the non-peak periods of the system (Fig. 1, col. 8, lines 27-32). Further, Kenner teaches the claimed step of "assigning, by a set of services, management of a related set of data to a service within the distributed set of services based on an optimization criteria" as the primary index manager (PIM) determines whether it is managing an extended SRU 26 based on searching through audio-visual data index database to identify the video clips that have been accessed most frequently (FDVs) (the optimization criteria is the most frequently accessing compared a predetermined value). The video clips are duplicated on the identified extended SRUs. (Fig. 1, col. 8, lines 35-47). Further, Kenner teaches the claimed step of "responsive to an additional service

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joining the distributed set of services, querying management of the data within the related sets of data” as the SRU under-run counter parameter identifies the location of over-accessed SRUs, audio-visual data will be moved or copied from heavily loaded SRUs to lightly loaded SRUs in an effort to distribute or flatten SRU demand (Fig. 1, col. 14, lines 33-38). Finally, Kenner teaches the claimed step of “assigning management of a related set of data to the additional service within the distributed set of services based on the optimization criteria” as the SRU under-run counter parameter identifies the location of over-accessed SRUs, audio-visual data will be moved or copied from heavily loaded SRUs to lightly loaded SRUs in an effort to distribute or flatten SRU demand (Fig. 1, col. 14, lines 33-38).

11. As per dependent claim 7, Kenner teaches the claimed step of “the optimization criteria is based on location of the service within the distributed set of services” as the Audio-visual data index database is searched to determine most frequently accessed SRUs in comparison to predetermined value. Those extended SRUs are selected for the duplication or transferal. The selected SRUs are evaluated to whether they can accept duplicate copy of the video clip. If so, the FDV is duplicated on the identified extended SRU 26 (Fig. 1, col. 8, lines 38-47).

12. As per dependent claim 8, Kenner teaches the claimed step of “detecting a failed service in the distributed set of services by a set of remaining services

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within the distributed set of services” as whenever an SRU fails to deliver the requested video clip, the DSI 30 increments the SRU under-run counter for that SRU and eventually communicates this information to the PIM 22 (Fig. 1, col. 14, lines 20-23). Further, Kenner teaches the claimed step of “examining, by the set of remaining services within the distributed set of services, the related set of data managed by the failed service” as if the SRU under-run count exceeds a predetermined threshold value the PIM 32 directs further requests away from this affected SRU by the DSI 30 query alternate SRUs for the video clip information (Fig. 1, col. 14, lines 23-28).

13. As per dependent claim 9, Kenner teaches the claimed step of “determining whether data within the related set of data are at the same location as a service within the set of remaining services” as in the event that the video clip is only stored at this location, then a delay will be encountered as the DSI 30 waits for the video information to be downloaded. The PIM 22 will also direct that the number of FDVs to be decremented for this affected extended SRU 26 (Fig. 1, col. 14, lines 28-32). Further, Kenner teaches the claimed step of “responsive to data within the related set of data at the same location as a service within the set of remaining services, attaching the data to the service” as the SRU under-run counter parameter identifies the location of over-accessed SRUs, audio-visual data will be moved or copied from heavily loaded SRUs to lightly loaded SRUs in an effort to distribute or flatten SRU demand (Fig. 1, col. 14, lines 33-38).

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14. As per independent claim 10, which claims a system. Kenner teaches a video clip storage and retrieval system for user to receive comprehensive data collected from one or more databases by request from a user's multimedia computer. The user request is transmitted to the user's primary index manager via a local storage and retrieval unit (SRU) (col. 3, lines 6-10 and 34-37).

Kenner teaches the claimed "a system bus" as the information obtained on a high speed network 24 or communication line 16 (Fig. 1, col. 7, line 66 to col. 8, line 2). Further, Kenner teaches the claimed "a memory, including a set of instructions, functionally connected to the system bus" as the local storage and retrieval unit SRU 18 may comprise a file server for a local area network, with one or more integral or connected storage devices and each terminal 14 interacts with the local SRU 18 via a network connection, e.g. as a network node, using conventional network protocols and topologies (Fig. 1, col. 6, lines 14-20).

Further, Kenner teaches the claimed "a processing unit functionally connected to the system bus" as the connections between terminal 14 and the local SRU 18 can be within the same computer or between two or more computers located within a building, which are linked together on a local area network (Fig. 1, col. 6, lines 14-20). Further, Kenner teaches the claimed "the processing unit executes the set of instructions from the memory to organize a set of data into a plurality of related sets of data" as the SRU command logic sees to the duplication of popular videos on alternate SRUs 26. It also places copies of video segments on SRUs geographically closer to the user most interest in those videos.

Duplication of data is done during the non-peak periods of the system (Fig. 1,

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col. 8, lines 27-32). Further, Kenner teaches the claimed “the data in each related set of data has at least one attribute between members, the processing unit assigns, by a set of services, management of a related set of data to a service within the distributed set of services based on an optimization criteria” as the primary index manager (PIM) determines whether it is managing an extended SRU 26 based on searching through audio-visual data index database to identify the video clips that have been accessed most frequently (FDVs) (the optimization criteria is the most frequently accessing compared a predetermined value). The video clips are duplicated on the identified extended SRUs. (Fig. 1, col. 8, lines 35-47). Finally, Kenner teaches the claimed “responsive to a failed service within the distributed set of services, the processing unit transfers management of the related set of data managed by the failed service to another service within the distributed set of services” as whenever an SRU fails to deliver the requested video clip, the DSI 30 increments the SRU under-run counter for that SRU and eventually communicates this information to the PIM 22. The PIM 22 directs further requests to alternate SRUs for video clip information (Fig. 1, col. 14, lines 20-28).

15. As per independent claim 11, which claims for a system. Kenner teaches a video clip storage and retrieval system for user to receive comprehensive data collected from one or more databases by request from a user's multimedia computer. The user request is transmitted to the user's primary index manager via a local storage and retrieval unit (SRU) (col. 3, lines 6-10 and 34-37).

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Kenner teaches the claimed "a system bus" as the information obtained on a high speed network 24 or communication line 16 (Fig. 1, col. 7, line 66 to col. 8, line 2). Further, Kenner teaches the claimed "a memory, including a set of instructions, functionally connected to the system bus" as the local storage and retrieval unit SRU 18 may comprise a file server for a local area network, with one or more integral or connected storage devices and each terminal 14 interacts with the local SRU 18 via a network connection, e.g. as a network node, using conventional network protocols and topologies (Fig. 1, col. 6, lines 14-20).

Further, Kenner teaches the claimed "a processing unit functionally connected to the system bus" as the connections between terminal 14 and the local SRU 18 can be within the same computer or between two or more computers located within a building, which are linked together on a local area network (Fig. 1, col. 6, lines 14-20). Further, Kenner teaches the claimed "the processing unit executes the set of instructions from the memory to organize a set of data into a plurality of related sets of data" as the SRU command logic sees to the duplication of popular videos on alternate SRUs 26. It also places copies of video segments on SRUs geographically closer to the user most interest in those videos.

Duplication of data is done during the non-peak periods of the system (Fig. 1, col. 8, lines 27-32). Further, Kenner teaches the claimed step of "the data in each related set of data has at least one attribute between members, the processing unit assigns, by a set of services, management of a related set of data to a service within the distributed set of services based on an optimization criteria, responsive to an additional service joining the distributed set of

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services” as whenever an SRU fails to deliver the requested video clip, the DSI 30 increments the SRU under-run counter for that SRU and eventually communicates this information to the PIM 22. The PIM 22 directs further requests to alternate SRUs for video clip information (Fig. 1, col. 14, lines 20-28). Finally, Kenner teaches the claimed “the processing unit queries management of the data within the related sets of data, and the processing unit assigns management of a related set of data to the additional service within the distributed set of services based on the optimization criteria” as the SRU under-run counter parameter identifies the location of over-accessed SRUs, audio-visual data will be moved or copied from heavily loaded SRUs to lightly loaded SRUs in an effort to distribute or flatten SRU demand (Fig. 1, col. 14, lines 33-38).

16. As per independent claim 12, Kenner teaches a video clip storage and retrieval system for user to receive comprehensive data collected from one or more databases by request from a user’s multimedia computer. The user request is transmitted to the user’s primary index manager via a local storage and retrieval unit (SRU) (col. 3, lines 6-10 and 34-37). Kenner teaches the claimed “organizing means for organizing the set of data into a plurality of related sets of data, wherein the data in each related set of data has at least one attribute between members” as the SRU command logic sees to the duplication of popular videos on alternate SRUs 26. It also places copies of video segments on SRUs geographically closer to the user most interest in those videos.

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Duplication of data is done during the non-peak periods of the system (Fig. 1, col. 8, lines 27-32). Further, Kenner teaches the claimed "assigning means for assigning, by a set of services, management of a related set of data to a service within the distributed set of services based on an optimization criteria" as the primary index manager (PIM) determines whether it is managing an extended SRU 26 based on searching through audio-visual data index database to identify the video clips that have been accessed most frequently (FDVs) (the optimization criteria is the most frequently accessing compared a predetermined value) (Fig. 1, col. 8, lines 35-47). The video clips are duplicated on the identified extended SRUs. (Fig. 1, col. 8, lines 35-47). Finally, Kenner teaches the claimed "transferring means, responsive to a failed service within the distributed set of services, for transferring management of the related set of data managed by the failed service to another service within the distributed set of services" as whenever an SRU fails to deliver the requested video clip, the DSI 30 increments the SRU under-run counter for that SRU and eventually communicates this information to the PIM 22. The PIM 22 directs further requests to alternate SRUs for video clip information (Fig. 1, col. 14, lines 20-28).

17. As per dependent claim 13, Kenner teaches the claimed "the optimization criteria is based on location of the service within the distributed set of services" as the Audio-visual data index database is searched to determine most frequently accessed SRUs in comparison to predetermined value. Those extended SRUs are selected for the duplication or transferal. The selected SRUs

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are evaluated to whether they can accept duplicate copy of the video clip. If so, the FDV is duplicated on the identified extended SRU 26 (Fig. 1, col. 8, lines 38-47).

18. As per dependent claim 14, Kenner teaches the claimed “detecting means for detecting the failed service by a set of remaining services within the distributed set of services” as whenever an SRU fails to deliver the requested video clip, the DSI 30 increments the SRU under-run counter for that SRU and eventually communicates this information to the PIM 22 (Fig. 1, col. 14, lines 20-23). Further, Kenner teaches the claimed “examining means for examining, by the set of remaining services within the distributed set of services, the related set of data managed by the failed service” as if the SRU under-run count exceeds a predetermined threshold value the PIM 32 directs further requests away from this affected SRU by the DSI 30 query alternate SRUs for the video clip information (Fig. 1, col. 14, lines 23-28).

19. As per dependent claim 15, Kenner teaches the claimed “determining means for determining whether data within the related set of data are at the same location as a service within the set of remaining services ” as in the event that the video clip is only stored at this location, then a delay will be encountered as the DSI 30 waits for the video information to be downloaded. The PIM 22 will also direct that the number of FDVs to be decremented for this affected extended SRU 26 (Fig. 1, col. 14, lines 28-32). Further, Kenner teaches the claimed

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"attaching means, responsive to data within the related set of data at the same location as a service within the set of remaining services, for attaching the data to the services" as the SRU under-run counter parameter identifies the location of over-accessed SRUs, audio-visual data will be moved or copied from heavily loaded SRUs to lightly loaded SRUs in an effort to distribute or flatten SRU demand (Fig. 1, col. 14, lines 33-38).

20. As per dependent claim 16, Kenner teaches the claimed "querying means, responsive to an additional service joining the distributed set of services, for querying management of the data within the related sets of data" as data is preferably maintained on the extended SRUs 26 which are most often queried for the data, duplicated on local SRUs 18 which most often request the data or may be duplicated on other remote SRUs 38 as space allows (Fig. 1, col. 14, lines 43-46). Further, Kenner teaches the claimed "assigning means for assigning management of a related set of data to the additional service within the distributed set of services based on the optimization criteria" as the supply and demand approach mediated by PIM 22 in response to DSI monitoring inputs , provides fast access to most requested information and efficient storage with in a maximum of useful redundancy without waste or loss of performance. The network is also configured always to store each audio-visual entry in at least one other location (Fig. 1, col. 14, lines 47-53).

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21. As per independent claim 17, which claims for a system. Kenner teaches a video clip storage and retrieval system for user to receive comprehensive data collected from one or more databases by request from a user's multimedia computer. The user request is transmitted to the user's primary index manager via a local storage and retrieval unit (SRU) (col. 3, lines 6-10 and 34-37).

Kenner teaches the claimed step of "organizing means for organizing the set of data into a plurality of related sets of data" as the SRU command logic sees to the duplication of popular videos on alternate SRUs 26. It also places copies of video segments on SRUs geographically closer to the user most interest in those videos. Duplication of data is done during the non-peak periods of the system (Fig. 1, col. 8, lines 27-32). Further, Kenner teaches the claimed step of "assigning means for assigning, by a set of services, management of a related set of data to a service within the distributed set of services based on an optimization criteria" as the primary index manager (PIM) determines whether it is managing an extended SRU 26 based on searching through audio-visual data index database to identify the video clips that have been accessed most frequently (FDVs) (the optimization criteria is the most frequently accessing compared a predetermined value) (Fig. 1, col. 8, lines 35-47). The video clips are duplicated on the identified extended SRUs. (Fig. 1, col. 8, lines 35-47). Further, Kenner teaches the claimed step of "querying means, responsive to an additional service joining the distributed set of services, for querying management of the data within the related sets of data" as whenever an SRU fails to deliver the requested video clip, the DSI 30 increments the SRU under-run counter for that

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SRU and eventually communicates this information to the PIM 22. The PIM 22 directs further requests to alternate SRUs for video clip information (Fig. 1, col. 14, lines 20-28). Finally, Kenner teaches the claimed step of “assigning means for assigning management of a related set of data to the additional service within the distributed set of services based on the optimization criteria” as the SRU under-run counter parameter identifies the location of over-accessed SRUs, audio-visual data will be moved or copied from heavily loaded SRUs to lightly loaded SRUs in an effort to distribute or flatten SRU demand (Fig. 1, col. 14, lines 33-38).

22. As per dependent claim 18, Kenner teaches the claimed step of “the optimization criteria is based on location of the service within the distributed set of services” as the Audio-visual data index database is searched to determine most frequently accessed SRUs in comparison to predetermined value. Those extended SRUs are selected for the duplication or transferal. The selected SRUs are evaluated to whether they can accept duplicate copy of the video clip. If so, the FDV is duplicated on the identified extended SRU 26 (Fig. 1, col. 8, lines 38-47).

23. As per dependent claim 19, Kenner teaches the claimed step of “detecting means for detecting a failed service in the distributed set of services by a set of remaining services within the distributed set of services” as whenever an SRU fails to deliver the requested video clip, the DSI 30 increments the SRU under-

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run counter for that SRU and eventually communicates this information to the PIM 22 (Fig. 1, col. 14, lines 20-23). Further, Kenner teaches the claimed step of "examining means for examining, by the set of remaining services within the distributed set of services, the related set of data managed by the failed service" as if the SRU under-run count exceeds a predetermined threshold value the PIM 32 directs further requests away from this affected SRU by the DSI 30 query alternate SRUs for the video clip information (Fig. 1, col. 14, lines 23-28).

24. As per dependent claim 20, Kenner teaches the claimed step of "determining means for determining whether data within the related set of data are at the same location as a service within the set of remaining services " as in the event that the video clip is only stored at this location, then a delay will be encountered as the DSI 30 waits for the video information to be downloaded. The PIM 22 will also direct that the number of FDVs to be decremented for this affected extended SRU 26 (Fig. 1, col. 14, lines 28-32). Further, Kenner teaches the claimed step of " attaching means, responsive to data within the related set of data at the same location as a service within the set of remaining service, attaching the data to the service " as the SRU under-run counter parameter identifies the location of over-accessed SRUs, audio-visual data will be moved or copied from heavily loaded SRUs to lightly loaded SRUs in an effort to distribute or flatten SRU demand (Fig. 1, col. 14, lines 33-38).

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25. As per independent claim 21, which claims for a program product.

Kenner teaches a video clip storage and retrieval system for user to receive comprehensive data collected from one or more databases by request from a user's multimedia computer. The user request is transmitted to the user's primary index manager via a local storage and retrieval unit (SRU) (col. 3, lines 6-10 and 34-37). Kenner teaches the claimed "instructions for organizing the set of data into a plurality of related sets of data" as the SRU command logic sees to the duplication of popular videos on alternate SRUs 26. It also places copies of video segments on SRUs geographically closer to the user most interest in those videos. Duplication of data is done during the non-peak periods of the system (Fig. 1, col. 8, lines 27-32). Further, Kenner teaches the claimed "instructions for assigning, by a set of services, management of a related set of data to a service within the distributed set of services based on an optimization criteria" as the primary index manager (PIM) determines whether it is managing an extended SRU 26 based on searching through audio-visual data index database to identify the video clips that have been accessed most frequently (FDVs) (the optimization criteria is the most frequently accessing compared a predetermined value). The video clips are duplicated on the identified extended SRUs. (Fig. 1, col. 8, lines 35-47). Finally, Kenner teaches the claimed "instructions, responsive to a failed service within the distributed set of services, for transferring management of the related set of data managed by the failed service to another service within the distributed set of services" as whenever an SRU fails to deliver the requested video clip, the DSI 30 increments the SRU

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under-run counter for that SRU and eventually communicates this information to the PIM 22. The PIM 22 directs further requests to alternate SRUs for video clip information (Fig. 1, col. 14, lines 20-28).

26. As per dependent claim 22, Kenner teaches the claimed "the optimization criteria is based on location of the service within the distributed set of services" as the Audio-visual data index database is searched to determine most frequently accessed SRUs in comparison to predetermined value. Those extended SRUs are selected for the duplication or transferal. The selected SRUs are evaluated to whether they can accept duplicate copy of the video clip. If so, the FDV is duplicated on the identified extended SRU 26 (Fig. 1, col. 8, lines 38-47).

27. As per dependent claim 23, Kenner teaches the claimed "instructions for detecting the failed service by a set of remaining service within the distributed set of services" as whenever an SRU fails to deliver the requested video clip, the DSI 30 increments the SRU under-run counter for that SRU and eventually communicates this information to the PIM 22 (Fig. 1, col. 14, lines 20-23). Further, Kenner teaches the claimed "instructions for examining, by the set of remaining services within the distributed set of services, the related set of data managed by the failed service" as if the SRU under-run count exceeds a predetermined threshold value the PIM 32 directs further requests

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away from this affected SRU by the DSI 30 query alternate SRUs for the video clip information (Fig. 1, col. 14, lines 23-28).

28. As per dependent claim 24, Kenner teaches the claimed "instructions for determining whether data within the related set of data are at the same location as a service within the set of remaining services " as in the event that the video clip is only stored at this location, then a delay will be encountered as the DSI 30 waits for the video information to be downloaded. The PIM 22 will also direct that the number of FDVs to be decremented for this affected extended SRU 26 (Fig. 1, col. 14, lines 28-32). Further, Kenner teaches the claimed "instructions, responsive to data within the related set of data at the same location as a service within the set of remaining services, for attaching the data to the service" as the SRU under-run counter parameter identifies the location of over-accessed SRUs, audio-visual data will be moved or copied from heavily loaded SRUs to lightly loaded SRUs in an effort to distribute or flatten SRU demand (Fig. 1, col. 14, lines 33-38).

29. As per dependent claim 25, Kenner teaches the claimed "instructions, responsive to an additional service joining the distributed set of service, for querying management of the data within the related sets of data" as data is preferably maintained on the extended SRUs 26 which are most often queried for the data, duplicated on local SRUs 18 which most often request the data or may be duplicated on other remote SRUs 38 as space allows (Fig. 1, col. 14,

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lines 43-46). Further, Kenner teaches the claimed "instructions for assigning management of a related set of data to the additional service within the distributed set of services based on the optimization criteria" as the supply and demand approach mediated by PIM 22 in response to DSI monitoring inputs , provides fast access to most requested information and efficient storage with in a maximum of useful redundancy without waste or loss of performance. The network is also configured always to store each audio-visual entry in at least one other location (Fig. 1, col. 14, lines 47-53).

30. As per independent claim 26, which claims for a program product. Kenner teaches a video clip storage and retrieval system for user to receive comprehensive data collected from one or more databases by request from a user's multimedia computer. The user request is transmitted to the user's primary index manager via a local storage and retrieval unit (SRU) (col. 3, lines 6-10 and 34-37). Kenner teaches the claimed step of "instructions for organizing the set of data into a plurality of related sets of data" as the SRU command logic sees to the duplication of popular videos on alternate SRUs 26. It also places copies of video segments on SRUs geographically closer to the user most interest in those videos. Duplication of data is done provides the (Fig. 1, col. 8, lines 27-32). Further, Kenner teaches the claimed step of "instructions for assigning, by a set of services, management of a related set of data to a service within the distributed set of services based on an optimization criteria " as the primary index manager (PIM) determines whether it is managing an extended

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SRU 26 based on searching through audio-visual data index database to identify the video clips that have been accessed most frequently (FDVs) (the optimization criteria is the most frequently accessing compared a predetermined value.) The video clips are duplicated on the identified extended SRU (Fig. 1, col. 8, lines 35-47). Further, Kenner teaches the claimed step of "instructions, responsive to an additional service joining the distributed set of services, for querying management of the data within the related sets of data " as whenever an SRU fails to deliver the requested video clip, the DSI 30 increments the SRU under-run counter for that SRU and eventually communicates this information to the PIM 22. The PIM 22 directs further requests to alternate SRUs for video clip information (Fig. 1, col. 14, lines 20-28). Finally Kenner teaches the claimed "instructions for assigning management of a related set of data to the additional service within the distributed set of services based on the optimization criteria" as the SRU under-run counter parameter identifies the location of over-accessed SRUs, audio-visual data will be moved or copied from heavily loaded SRUs to lightly loaded SRUs in an effort to distribute or flatten SRU demand (Fig. 1, col. 14, lines 33-38).

31. As per dependent claim 27, Kenner teaches the claimed step of "the optimization criteria is based on location of the service within the distributed set of services" as the Audio-visual data index database is searched to determine most frequently accessed SRUs in comparison to predetermined value. Those extended SRUs are selected for the duplication or transferal. The selected SRUs

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are evaluated to whether they can accept duplicate copy of the video clip. If so, the FDV is duplicated on the identified extended SRU 26 (Fig. 1, col. 8, lines 38-47).

32. As per dependent claim 28, Kenner teaches the claimed "instructions for detecting a failed service in the distributed set of services by a set of remaining services within the distributed set of services " as whenever an SRU fails to deliver the requested video clip, the DSI 30 increments the SRU under-run counter for that SRU and eventually communicates this information to the PIM 22 (Fig. 1, col. 14, lines 20-23). Further, Kenner teaches the claimed step of "instructions for examining, by the set of remaining services within the distributed set of services, the related set of data managed by the failed service" as if the SRU under-run count exceeds a predetermined threshold value the PIM 32 directs further requests away from this affected SRU by the DSI 30 query alternate SRUs for the video clip information (Fig. 1, col. 14, lines 23-28).

33. As per dependent claim 29, Kenner teaches the claimed step of "instructions for determining whether data within the related set of data are at the same location as a service within the set of remaining services" as in the event that the video clip is only stored at this location, then a delay will be encountered as the DSI 30 waits for the video information to be downloaded. The PIM 22 will also direct that the number of FDVs to be decremented for this affected extended

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SRU 26 (Fig. 1, col. 14, lines 28-32). Further, Kenner teaches the claimed step of "instructions, responsive to data within the related set of data at the same location as a service within the set of remaining services, for attaching the data to the service " as the SRU under-run counter parameter identifies the location of over-accessed SRUs, audio-visual data will be moved or copied from heavily loaded SRUs to lightly loaded SRUs in an effort to distribute or flatten SRU demand (Fig. 1, col. 14, lines 33-38).

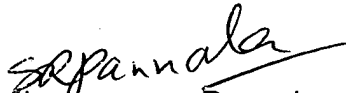
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sathyanarayan Pannala whose telephone number is (571) 272-4115. The examiner can normally be reached on 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (571) 272-4115. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Sathyanarayan Pannala
Examiner
Art Unit 2167

srp
October 30, 2004